WHAT IS CLAIMED IS:

1.   In an ad-hoc network wherein data packets are sent from a source node to a destination node via an established route, a source node comprising:

logic configured to request route discovery between the source not and a destination node;

logic configured to determine whether said request for route discovery between the source node and the destination node over existing network connections fails; and

logic configured to establish a route between the source node and the destination node by forming one or more new connections if it is determined that said request for route discovery between the source node and the destination node over existing network connections fails.

2.   The source node of claim 1, wherein said logic configured to request route discover comprises:

logic configured to broadcast a route discovery request message, for a route between the source node and the destination node over one or more connections associated with one or more existing subnetworks, if the source node is a member of one or more of the existing subnetworks.

3.   The source node of claim 2, wherein said logic configured to determine whether said request for route discovery over existing network connections fails comprises:

logic configured to determine if a timely reply message is received by the source node in response to the broadcast route discovery request message.

4.   The source node of claim 3, wherein said logic configured to establish a route comprises:

logic configured to establish a route between the source node and the destination node over one or more new connections associated with one or more newly formed subnetworks, if it is determined that a timely reply was not received.

5.   In an ad-hoc network wherein data packets are sent from a source node to a destination node via an established route, a source node comprising:

logic configured to request route discovery between the source not and a destination node;

logic configured to determine whether said request for route discovery between the source node and the destination node over existing network connections fails; and

logic configured to establish a route between the source node and the destination node by forming one or more new connections if it is determined that said request for route discovery between the source node and the destination node over existing network connections fails.

6.   The source node of claim 5, wherein said logic configured to request route discover comprises:

logic configured to broadcast a route discovery request message, for a route between the source node and the destination node over one or more connections associated with one or more existing subnetworks, if the source node is a member of one or more of the existing subnetworks.

7.   The source node of claim 6, wherein said logic configured to determine whether said request for route discovery over existing network connections fails comprises:

logic configured to determine if a timely reply message is received by the source node in response to the broadcast route discovery request message.

8.   The source node of claim 7, wherein said logic configured to establish a route comprises:

logic configured to establish a route between the source node and the destination node over one or more new connections associated with one or more newly formed subnetworks, if it is determined that a timely reply was not received.